## Atlantic Richfield Company

**Anthony R. Brown**Project Manager, Mining

July 19, 2017

Lynda Deschambault Remedial Project Manager, Superfund Division U.S. Environmental Protection Agency, Region 9 75 Hawthorne Street, 10<sup>th</sup> Floor (SFD 7-1) San Francisco, California 94105

**Subject: Waste Material Off-Site Shipment Notification: Interim Combined Treatment** 

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**HDS Treatment Generated Solids** 

Leviathan Mine Site Alpine County, California

Dear Ms. Deschambault:

Atlantic Richfield Company ("Atlantic Richfield") is submitting this letter in accordance with Paragraph 64 ("Off-Site Shipments") of the Administrative Settlement Agreement and Order on Consent for Removal Action, CERCLA Docket No. 2008-29 (effective January 21, 2009) (the "AOC"). This letter provides written notification of a series of off-site shipments of Waste Material (as defined in the AOC) to an out-of-state management facility described as follows:

(1) Name and location of facility to which Waste Material is to be shipped:	US Ecology Nevada, Inc. P.O. Box 578 Beatty, NV 89003 Phone: 1.800.239.3943
(2) Type and Quantity of Waste Material to be shipped:	Treatment generated waste consisting of precipitated solids from lime treatment of acid drainage from the Pit Underdrain (PUD), Adit, Channel Underdrain (CUD), and Delta Seep (DS) using the High Density Sludge (HDS) Treatment System; the Waste Material is being collected in 25 cubic yard fabric lined filter bins. Atlantic Richfield is planning to ship approximately 25 bins (approximately 300 cubic yards of Waste Material) during the Interim Combined Treatment (ICT) Demonstration over a series of shipments. Waste quantities shipped each week will be provided in a weekly report to U.S. EPA.
(3) Expected schedule for shipment of the Waste Material:	Waste shipments are currently scheduled to begin on July 19, 2017.
(4) Method of Transportation:	By truck



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In addition to U.S. EPA, Atlantic Richfield is providing a copy of this written notification per the AOC to Mr. Eric Noack, with the Nevada Division of Environmental Protection Bureau of Waste Management. By letter dated February 6, 2009, Atlantic Richfield requested U.S. EPA's certification that the US Ecology facility in Beatty, Nevada is operating in compliance with the requirements of CERCLA Section 121(d)(3), § 9621(d)(3), and 40 CFR. § 300.440.

### **REGULATORY STATUS**

Atlantic Richfield's waste management contractor, Ponder Environmental Services, and US Ecology disposal faciality have classified the Waste Material as described below.

#### **HDS Treatment Generated Solids**

A sample of the ICT Demonstration HDS Treatment generated Waste Material was collected by Amec Foster Wheeler personnel on July 10, 2017 and submitted to Test America Laboratories, Inc. in Irvine, California for TCLP, TTLC, STLC and SPLP analyses (see Attachment A - Laboratory Analytical Results of ICT Demonstration HDS Treatment Generated Solids). Based upon Atlantic Richfield's knowledge of the hazardous characteristics of the Waste Material, in light of the process used to generate this Waste Material, and upon analytical test results from a National Environmental Laboratory Accreditation Program ("NELAP") accredited testing facility: (i) the Waste Material is not a listed hazardous waste or a characteristic hazardous waste under Subtitle C of RCRA, even without the waste exemptions identified above, and (ii) the Waste Material is a California characteristic hazardous waste based on the STLC nickel concentration (see California Code of Regulations, Title 22). This determination is based upon the following:

- 1. The NELAP accredited laboratory analytical results from representative samples of the Waste Material proposed for off-site shipment show that the parameter concentrations are less than the federal toxicity criteria for TCLP. Laboratory results also show that the Waste Material does not exceed California TTLC regulatory threshold values. Nickel was detected in the Waste Material sample at a concentration of 24 mg/L, which is above the California STLC regulatory threshold value of 20 mg/L for the toxicity characteristic. Other parameter concentrations in the Waste Material were below STLC regulatory threshold values.
- The Waste Material does not have the characteristics of ignitability under 40 CFR §
  261.21. The Waste Material does not have a flash point of less than 140 degrees
  Fahrenheit (°F) and is not capable of spontaneous combustion under standard pressure
  and temperature.
- 3. The Waste Material does not exhibit the characteristics of corrosivity under 40 CFR § 261.22. The Waste Material has a pH greater than 2.0 standard units (s.u.) and less than 12.5 s.u.
- 4. The Waste Material does not exhibit the characteristics of reactivity under 40 CFR § 261.23. The Waste Material does not react violently with air or water, is not unstable in normal environmental conditions, does not react with water or corrosives to produce toxic gases, and is not explosive.



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5. The Waste Material is not listed as a hazardous waste under federal law.

If you have any questions or comments, please feel free to contact me at the numbers above or via email <a href="mailto:anthony.brown@bp.com">anthony.brown@bp.com</a>. Also, if EPA has any concerns with Atlantic Richfield using this letter to serve as a one-time notification for multiple off-site shipments of ICT Demonstration HDS Treatment generated Waste Material, as described above, please let me know as soon as possible.

Sincerely,

Anthony R. Brown

Project Manager, Mining

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Attachment: Attachment A – Laboratory Analytical Results of ICT Demonstration HDS

**Treatment Generated Solids** 

cc: Gary Riley, U.S. Environmental Protection Agency, Region 9 – via electronic copy

Eric Noack, NDEP Bureau of Waste Management – via electronic copy

Douglas Carey, Lahontan Regional Water Quality Control Board - via electronic copy

Nathan Block, Esq., BP - via electronic copy

Adam Cohen, Esq., Davis Graham & Stubbs, LLP - via electronic copy

Marc Lombardi, Amec Foster Wheeler - via electronic copy

Dave McCarthy, Copper Environmental Consulting – via electronic copy



#### **ATTACHMENT A**

# LABORATORY ANALYTICAL RESULTS OF ICT DEMONSTRATION HDS TREATMENT GENERATED SOLIDS Draft - Provisional Data

Leviathan Mine Site Alpine County, California

	Sample Date: July 10, 2017 Sample ID: WSL07101704 Sample Type: Bin 1 3-Part Composite			Regulatory Threshold <sup>c</sup>			
Parameter	Total Metals (mg/kg)	STLC (mg/L)	TCLP (mg/L)	SPLP (mg/L)	TTLC (Regulatory Limits for Total Metals) (mg/kg)	STLC (Regulatory Limits) (mg/L)	TCLP (Regulatory Limits) (mg/L)
Aluminum	26000	960	14	0.48 J	NA	NA	NA
Antimony	36	<0.20	<0.20	<0.20	500	15	NA
Arsenic	290	0.16 J	<0.20	<0.20	500	5.0	5.0
Barium	2.7 J	<0.20	0.10 J	<0.20	10,000	100	100
Beryllium	1.6	0.071 J	<0.080	<0.080	75	0.75	NA
Cadmium	4.0	0.21	0.085 J	<0.10	100	1.0	1.0
Chromium	60	2.0	<0.10	<0.10	500 <sup>a</sup>	5 (560) <sup>b</sup>	5.0
Cobalt	210	12	3.3	<0.20	8,000	80	NA
Copper	170	9.6	0.13 J	0.066 J	2,500	25	NA
Iron	76000	2100	0.29 J	<0.80	NA	NA	NA
Lead	<4.0	<0.10	<0.10	<0.10	1,000	5.0	5.0
Manganese	1900	130	110	1.8	NA	NA	NA
Mercury	<0.020	<0.0020	<0.0020	<0.0020	20	0.2	0.2
Molybdenum	36	<0.40	<0.40	<0.40	3,500	350	NA
Nickel	460	24	7.7	<0.20	2,000	20	NA
Selenium	<6.0	<0.20	<0.10	<0.10	100	1.0	1.0
Silver	<3.0	<0.20	<0.20	<0.20	500	5.0	5.0
Thallium	12 J	0.28	0.42	<0.10	700	7.0	NA
Vanadium	31	<0.20	<0.20	<0.20	2,400	24	NA
Zinc	110	4.1	0.67	<0.40	5,000	250	NA
pH (standard units) Soil Moisture	7.8 63.3			Corrosivity criteria for pH = ≤ 2.0 or ≥ 12.5 <sup>c</sup>			
(% by weight)	03.3			pri = 2.0 or = 12.0			

#### Notes

#### <u>Abbreviations</u>

"<" = Constituent not detected at or above the reporting limit or the method detection limit listed HDS = High Density Sludge ICT = Interim Combined Treatment J = The associated value is an estimated quantity mg/L = milligrams per liter

mg/kg = milligrams per kilograms
NA = Not applicable
SPLP = Synthetic precipitation leaching procedure
STLC = Soluble threshold limit concentration
TCLP = Toxicity characteristic leaching procedure
TTLC = Total threshold limit concentration

a Concentration limit for total chromium and/or chromium (III) is 2,500 mg/L and limit for chromium (VI) is 500 mg/L.

<sup>&</sup>lt;sup>b</sup> The federal hazardous waste level for soluble chromium is 5mg/L. California has a Waste Extraction Test (WET) soluble level for chromium (III) (560 mg/L) and chromium (VI) (5 mg/L). To use the 560 mg/L regulatory threshold, it must be demonstrated first that the waste is not a Resource Conservation Recovery Act (RCRA) waste.

<sup>&</sup>lt;sup>c</sup> Title 22 California Code of Regulations, Section 66261.24 (a)(2): Samples were tested for waste extraction test, solubility, and total concentrations. If the results of the STLC or TTLC equal or exceed their respective regulatory thresholds, the waste is a hazardous waste.